CLAIMS

WHAT IS CLAIMED IS:

1. A method for replacing a remote unit in a communication system, comprising:

installing a new remote unit in the place of a removed remote unit;

receiving gain characteristics associated with the new remote unit;

receiving gain characteristics and attenuation parameters associated with the removed remote unit;

calculating attenuation values for the new remote unit based upon the new remote unit gain characteristics and the removed remote gain characteristics and attenuation parameters; and

providing the calculated attenuation parameters to the new remote unit.

2. The method of claim 1, further comprising the step of determining that the new remote unit has been installed in the place of the removed remote unit.

3. The method of claim 2, wherein the step of determining that a removed remote unit has been replaced with a new remote unit in the communication system includes:

sending a message to a location in the communication system where the remote unit was installed; and

receiving a message from the new remote unit in response to the message sent to the location in the communication system where the removed remote unit was installed.

4. The method of claim 3, wherein the message sent is directed to a remote unit ID code.

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5.   The method of claim 3, wherein the message sent requests a unique remote

2   unit identifier.

6.   The method of claim 5, further comprising:

2   the new remote unit sending a message in response to the request for the

unique remote unit identifier.

7.   The method of claim 6, wherein the determination that the removed remote

2   unit has been replaced with the new remote unit is made by comparing the unique

remote unit identifier within the message received from the new remote unit with

4   the unique remote unit identifier associated with the removed remote unit.

8.   The method of claim 1, further comprising:

2   adjusting the attenuation for the new remote unit based upon the gain

characteristics of the new remote unit, the gain characteristics of the removed

4   remote unit and the calculated attenuation parameters of the removed remote unit.

9.   The method of claim 8, further comprising:

2   sending the processed IF attenuation parameters to the new remote unit; and

the new remote unit setting its IF attenuators to the reported values.

10.   The method of claim 1, wherein the recalled parameters are recalled from a

2   master system unit.

11.   The method of claim 10, wherein the master system unit further comprises

2   memory with stored parameters from the removed remote unit, the stored

parameters including:

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4   gain characteristics and attenuation parameters from the removed remote

unit;

6   a unique remote unit identifier assigned to the removed remote unit; and

a remote unit ID code assigned to the removed remote unit.

12.   The method of claim 8, further comprising:

2   determining new IF attenuation values for an IF forward link attenuator;

determining new IF attenuation values for an IF reverse link attenuator; and

4   sending the IF attenuation values to the new remote unit.

13.   The method of claim 12, further comprising:

2   setting at least one attenuator in the new remote unit based upon the

determined IF attenuation values.

14.   The method of claim 12, wherein the determination of the new IF

2   attenuation value for the IF forward link attenuator further comprises:

recalling an attenuation value for the forward link IF attenuator of the

4   removed remote unit;

receiving the forward-gain-zero value for the removed remote unit;

6   subtracting the forward-gain-zero value for the removed remote unit from

the attenuation value for the forward link IF attenuator of the removed remote unit

8   to determine a forward link differential value;

recalling a forward-gain-zero value for the new remote unit; and

10   adding the forward-gain-zero value for the new remote unit to the forward

link differential value.

15.   The method of claim 14, wherein the determination of the new IF

2   attenuation value for the IF reverse link attenuator further comprises:

recalling an attenuation value for the reverse link IF attenuator of the

4   removed remote unit;

receiving the reverse-gain-zero value for the removed remote unit;

6   subtracting the reverse-gain-zero value for the removed remote unit from

the attenuation value for the reverse link IF attenuator of the removed remote unit

8   to determine a reverse link differential value;

recalling a reverse-gain-zero value for the new remote unit; and

10   adding the reverse-gain-zero value for the new remote unit to the reverse

link differential value.

16.   The method of claim 12, further comprising:

2   storing the new IF attenuation values in a master system unit memory.

17.   The method of claim 16, further comprising:

2   the master system unit storing the new IF attenuation values in a remote

unit table.

18.   The method of claim 8, wherein the gain characteristics of the removed

2   remote unit are recalled from a remote unit table.

19.   The method of claim 18, wherein the remote unit table is located within a

2   master system unit.

20.   A method for replacing a remote unit in a communication system,

2   comprising:

determining that a removed remote unit has been removed;

4   determining that a new remote unit has been installed in the place of the

removed remote unit;

6   recalling gain characteristics associated with the removed remote unit;

           receiving gain characteristics from the new remote unit;

8   calculating IF attenuation parameters for the new remote unit; and

           providing the calculated parameters to the new remote unit.

21.   The method of claim 20, wherein the step of determining that a removed

2   remote unit has been replaced with a new remote unit in the communication

system includes:

4   sending a message to a remote unit ID code in the communication system

where the remote unit was installed; and

6   receiving a message from the new remote unit in response to the message

sent to the remote unit ID code in the communication system where the removed

8   remote unit was installed.

22.   The method of claim 21, wherein the message sent requests a unique

2   remote unit identifier.

23.   The method of claim 22, further comprising:

2   the new remote unit sending a message in response to the request for the

unique remote unit identifier;

4   comparing the unique remote unit identifier within the message received

from the new remote unit with the unique remote unit identifier associated with

6   the removed remote unit; and

determining that the removed remote unit has been replaced with the new

8   remote unit.

24.   The method of claim 20, further comprising:

2   recalling gain characteristics attenuation parameters of the removed remote

unit;

4   receiving gain characteristics of the new remote unit;

         determining attenuation parameters of the new remote unit based upon the

6   gain characteristics and attenuation parameters of the removed remote unit and the

gain characteristics of the new remote unit; and

8   sending the attenuation parameters to the new remote unit

25.   The method of claim 20, wherein the recalled parameters are recalled from

2   a master system unit.

26.   The method of claim 24, further comprising:

2   determining new IF attenuation values for an IF forward link attenuator;

         determining new IF attenuation values for an IF reverse link attenuator; and

4   adjusting the parameters for the new remote unit based upon the determined

IF attenuation values.

27.   The method of claim 26, further comprising:

2   setting at least one attenuator in the new remote unit based upon the

determined IF attenuation values.

28.   The method of claim 26, wherein the determination of the new IF

2   attenuation value for the IF forward link attenuator further comprises:

recalling an attenuation value for the forward link IF attenuator of the

4   removed remote unit;

recalling a forward-gain-zero value for the removed remote unit;

6   subtracting the forward-gain-zero value for the removed remote unit from

the attenuation value for the forward link IF attenuator of the removed remote unit

8   to determine a forward link differential value;

receiving the forward-gain-zero value for the new remote unit; and

10   adding the forward-gain-zero value for the new remote unit to the forward

link differential value.

29.   The method of claim 12, wherein the determination of the new IF

2   attenuation value for the IF reverse link attenuator further comprises:

recalling an attenuation value for the reverse link IF attenuator of the

4   removed remote unit;

recalling a reverse-gain-zero value for the removed remote unit;

6   subtracting the reverse-gain-zero value for the removed remote unit from

the attenuation value for the reverse link IF attenuator of the removed remote unit

8   to determine a reverse link differential value;

receiving the reverse-gain-zero value for the new remote unit; and

10   adding the reverse-gain-zero value for the new remote unit to the reverse

link differential value.

30.   The method of claim 26, further comprising:

2   the master system unit storing the new IF attenuation values.

31.   The method of claim 30, further comprising:

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2   the master system unit storing the new IF attenuation values in a remote

unit table.

32.   The method of claim 24, wherein the gain characteristics of the removed

2   remote unit are recalled from a remote unit table located within a master system

unit.

33.   A system for replacing a remote unit in a communication system,

2   comprising:

a master system unit having a memory component;

4   a new remote unit being electronically connected to the master system unit;

and

6   the master system unit memory component including stored parameters

from a removed remote unit.

34.   The system of claim 33, further comprising:

2   the new remote unit having a memory component; and

the new remote unit memory component including stored parameters from

4   the removed remote unit.

35.   The system of claim 34, wherein the master system unit and the new remote

2   unit are electronically connected by a wire.

36.   The system of claim 33, wherein the master system unit stored parameters

2   further includes:

gain characteristics from the removed remote unit;

4   a unique remote unit identifier assigned to the removed remote unit; and

a remote unit ID code assigned to the removed remote unit.

37.   The system of claim 33, wherein the master system unit stored parameters

2   further includes:

IF attenuation values for an IF forward link attenuator;

4   IF attenuation values for an IF reverse link attenuator;

forward insertion loss value of the IF cable connecting the master system

6   unit and the remote unit; and

reverse insertion loss value of the IF cable connecting the master system

8   unit and the remote unit.

38.   The system of claim 37, wherein the stored parameters for the master

2   system unit are located in a remote unit table.